Suffolk County Planning Federation
ADVANCED SITE PLANNING
October 14, 2004

Overview

Authority to Review Site Plans
- Town/ Village Law, local law/ ordinance.
- Administered by local legislative body or delegated to planning board, other board or staff.

Purpose
- Safe, well functioning, compatible development.
- Balance between best planning principles and best engineering practices.
- Place and time where theory and knowledge are translated into reality and practice.
- Last chance to revise concepts on paper.

Definition
- *" A rendering, drawing or sketch prepared to specifications and containing necessary elements, as set forth in the applicable zoning ordinance or local law, which shows the arrangement, layout and design of the proposed use of a single parcel of land as shown on said plan"* (NYS Town Law 274-a, Village Law 7-725-a.)

Applicability
- Elements may include: parking, means of access, screening, signs, landscaping, architectural features, location and dimension of buildings, adjacent land uses and physical features meant to protect adjacent land uses.
- All development greater than single family- Commercial, Industrial, Multiple Family Residential.
- Process tailored to different uses- different review levels appropriate.
- Universal principles apply to all sites.

Design Considerations External to Site

Access
- Location of access.
  - Distance from intersections.
  - Sight distance- vertical/ horizontal.
- Design of access.
  - Number of access points.
  - Turning lanes.

Improvements Within Right-of-Way
- Adjacent to site.
  - Curbs, drainage, pavement, sidewalks (ADA).

    - Other improvements: traffic controls, bus turnouts.
- Off-site.
    - "Rough proportionality"- need for off-site improvements must be associated with impact of development.

Compatibility

- Land use.
    - Buffer/ screen incompatible uses.
- Circulation/ parking shared with adjacent uses.
    - Access management agreements/ cross access easements.

Design Considerations Internal to Site

Site Circulation

- Transition from public road.
    - Transition throat
- On-site circulation.
    - Separation of vehicles and pedestrians.
    - Ring roads.
- Truck turning movements.
- Loading/ Service areas.

Parking

- Quantity
    - Adequate for most needs.
    - Consider mix of uses and changes over time.
    - Avoid over-design.
    - Landbanking.
- Layout
    - Standard dimensions.
    - Functional, easy to use.
    - Layouts to avoid (backing into main aisles, poor sight distance)
    - ADA compliance.

Aesthetics/ Compatibility With Surrounding Uses and Community Standards

- Landscaping
    - Streetscape.
    - Minimizing "sea of asphalt"
    - Design of islands.
    - Species selection.
    - Irrigation.
    - Enhancement of building.

- Dumpsters/ Compactors
  - Location.
  - Enclosure methods.
- Signs
  - Integrate into site design, not an afterthought.
  - Do not block sight distances.

Grading and Drainage

- Grading
  - Purpose of grading
  - Elevations/ contours- buildings, street, driveways, top/ bottom curbs, drainage castings, pipe inverts.
  - Contributory Areas- Distribution, minimum/ maximum gradients, ridge/ flow lines.

- Drainage
  - Basic system design features- collection, storage, disposal of rainwater.
  - Run-off coefficients.
  - Minimum storage capacity- e.g., 2", 5", 8" designs
  - Soil borings- number, location, depth
  - Location of drainage structures (away from intersections, buildings).
  - "Phase II" stormwater regulations

Lighting

- Sufficient for safety.
- Avoid over illumination/ nuisance to surrounding properties.
- "Dark Skies"

Process

Technical

- Information needed for review (survey, test wells, elevations, grading plan, etc.)
- Site plan review checklist.
- Additional studies- traffic, environmental, archeological, etc.

Administrative

- Predictable
- Fair
- Consistent

Questions and Answers

Site Plan Review Checklist

General Info & Existing Conditions

Submit a total site plan package, including appropriately labeled grading, utility, landscaping, lighting, roadway improvement, and traffic improvement plans, building elevation drawings (north, south, east, and west), and sign plans.

Show Suffolk County Tax Map number in lower right hand title box.

Give name, address, and telephone number of the owner and applicant.

State name and location of property (streets and hamlet). Show tie distance to nearest cross street.

Show name and width of all adjoining streets, including any unopened right of ways. Submit proof of abandonment or road opening permit.

Show location and use of any easements on site.

Certify plans with seal and signature by licensed Engineer, Architect or Surveyor.

Show key map with a 1"=1000' scale. Show zoning limits on key map.

Show plans with a 1"=20' 40'scale, north arrow, and date drawing was prepared or revised.

Show metes and bounds along boundaries of the site. Submit survey by a licensed land surveyor.

Show zoning, ownership, and use of adjacent properties.

Show location of all wetlands on site and within 100 feet of the site. Show required 100 foot buffer adjacent to designated wetlands.

Specify known cultural resources, including any vegetation in a linear pattern, lopped trees, ditch-mound boundaries, glacial erratic, cemeteries, prehistoric sites, historic structures etc.

Show all existing improvements (structures, curb, walk, pavement, fencing, clearing, etc.) on site and along street frontages. Show distance to structures of adjacent properties with their uses.

Show existing utilities (poles, electric, water, gas, sanitary lines) on site and along street frontage. . Specify location of streetlights and their wattage.

Show existing drainage facility in street. Show location, size, capacity of existing leaching pools and/or positive system.

Show location and dimensions of existing roadway pavement, curb, sidewalk, median, median openings, guide rails, traffic signs, traffic signals, pavement markings adjacent to and within 250 feet of the subject property. Show location of driveways on opposite side of the street.

Show location of existing fire hydrants on site and/or within 500 feet of the site.

Show location and speed limit of all posted speed limit signs.

ON-SITE IMPROVEMENTS

Show SITE DATA table as follows:

SITE DATA		
Zoning		
Proposed Use		
Town Board/Planning Board Resolution		
ZBA Decision		
Lot Area		
Building Area		Sf
Floor Area Ratio (FAR)		%
Total Landscaping		Sf & %
Front yard landscaping		Sf & %
Parking Spaces (show calculation)	#Req'd	#Prov'd
Loading Spaces	#Req'd	#Prov'd

Layout

Show building dimensions and location of all doors. Show building setback dimensions.

Garage access for more than 5 vehicles may not be located with in 25 feet of a residential district.

Provide building corner guards.

Show a minimum of 150 feet from site access to nearest intersection.

Show access to be a minimum of 24 feet wide with curb radii of 25 feet. The access is to be perpendicular to the roadway with a throat length of 40 feet.

Show parking space and aisle dimensions. Refer also to parking lot landscaping requirements below.

Provide pedestrian walkways through the parking lot.

Island returns must be 15' long and a minimum of 6' wide.

Show pavement markings and related traffic control signs for access on site and within parking area.

Show disability parking in compliance with Section 1106 of the NYS Building Code. (Table 1106.1, 2% for Groups R-2 & R-3, and 20% for rehabilitation and outpatient physical therapy facilities). Show ramps with 1:12 slopes. Show permanently installed disability signs, displaying the international symbol of accessibility, at a clear height of between 60" and 84" above grade. Signs shall not interfere with an accessible route from an access aisle.

Show passenger-loading zones in compliance with ICC/ANSI A117.1 for medical facilities where the period of stay exceeds 24 hours and for valet parking services.

Calculate land banked parking utilizing Institute of Transportation Engineers (ITE) data or other professional recognized sources. Show location of all land banked parking stalls. Note on plan "All land banked parking shall only be improved upon application to and with the review and approval of the Planning Board."

Land banked parking may not be included in landscape area requirements.

Grading

State USC&G, NGVD, or Town Datum used.

Show existing and proposed topography of site and to a point 50 feet beyond property boundaries, using 2-foot interval contours with spot elevations at critical points. Show grades along centerline of street.

Show first floor elevation of existing and proposed structures on site and on adjoining properties. Show building corner elevations

Show top and bottom of curb elevations. Show dimensions and elevations of curb and sidewalk relative to edge of pavement.

Show driveway grades or profile view of driveway.

Show a minimum 1% and maximum 5% parking lot gradient.

Show a minimum of 1 on 3 slopes. Show installation of retaining wall where minimum slope requirement cannot be met. Show detail of retaining wall with railing.

Show cross section transition of parking to highway and from parking to adjoining property.

Show grading of site to provide equitable distribution of drainage facilities for all contributory areas.

Show drainage casting elevations.

Show grading of pond to include high, normal and low water elevations, 1:6 slope for the first 15 feet from the high water elevation, and 1:4 slope to the normal water elevation, and 1:3 slope to the low water elevation.

Drainage

Show calculations for a storage of 2" rainfall for all on-site contributory areas.

Show calculations for a 5" rainfall with adequate overflow to a positive system for all on site contributory areas.

Show calculations for an 8" rainfall within a recharge basin for all on site contributory areas.

Show run off coefficients (100% paving, gravel & roof, 15% land).

Leaching pool capacity is 42.24 68.42 100.88 cf/lf.

Define contributory areas using ridgelines or flow arrows.

Show location and size of all proposed drainage structures on site.

Maximum of 3 pipes connected to one leaching pool.

Maximum total depth of drainage structures is 16 feet.

Show date, location, and elevation of soil borings with a graphic representation of findings, including soil data and ground water elevation, if encountered. Provide historical groundwater information.

Show test borings to be 5 feet below deepest drainage structure or recharge basin.

Show drainage structures with footing rings and 8" 10" top slabs.

Connecting pipe to be a minimum of 15" RCP CLIV or CPP between structures.

Show pipe size, slope and invert elevations. Submit pipe size calculations.

Show a minimum of 12 15 18 feet between storm drainage structures. Show a minimum of 20 feet between storm drainage structures and septic systems.

Roof drainage to be connected with minimum 6" PVC SDR 35.

Show details of all drainage structures (leaching pools, catch basins, manholes, end sections, headwalls, supplemental water feed, fountains, aerators, liners, etc.

Landscaping

Show major vegetation communities (old field, pine barrens, mature oak, agricultural, etc.) present on site.

Locate all trees over 24" caliper and denote species.

Show limits of clearing or disturbance. Show extent of existing tree line. Recommend maintenance and preservation of existing natural vegetation Show location of temporary fencing around natural/wooded areas to remain to assure protection during construction. All previously disturbed areas must be re-vegetated

Submit detailed landscaping plan, including a schedule providing common and scientific nomenclature, quantities, and size.

Show a minimum of 20% 30% (commercial center, regional theater or industrial or office of min. 5 ac) 35% (fast foot restaurant) of the site maintained as landscaped or natural area.

Show a minimum of half of all required landscaping or natural area within the front yard. Show a minimum of 15 50 (commercial center, regional theater or industrial or office use of min. 5 ac) feet of landscaping or natural area along the street frontage.

Show installation of a hedge, berm and/or decorative wall or fence to screen all parking areas.

Show the installation of street trees with a minimum 4" caliper, 30 feet on center, along all street frontages. Relocate trees so that future canopy does not interfere with overhead utility lines, or relocate utility lines.

Show in-ground irrigation system along entire road frontage and buffer zones.

Show a 25 75 foot buffer wherever the site adjoins a residential district or use. The buffer area shall remain in its natural state and supplemented with additional plantings equal in density and to a single double triple row of evergreen plantings 7 ft high, 5 ft on center.

For parking areas of 50 spaces or more, show a minimum of 400 sf of landscaping for each 25 parking spaces. Only landscaped areas within the interior of the parking lot are to be considered. Required buffer, front yard, and perimeter landscape requirements are not to be considered.

Divide large parking areas into smaller areas of 50 spaces with landscape strips, peninsulas or grade separations.

Provide a minimum of 10 20 foot wide landscape strips between parallel parking rows with a 5 foot pedestrian walk. Show detail of landscape strip with walkway material, benches, and proposed landscape treatment, including the installation of min. 4" caliper trees, 30 ft on center.

Provide trash receptacles in walkway fronting the building. Show detail of receptacle.

Other

Show north, south, east, and west elevations of the building. Specify colors and materials. Revise elevations to be compatible with the area.

Provide screening of roof top mechanicals.

Show location and size of all wall and detached or ground signs with calculations.

Relocate freestanding sign to conform to setback requirement for the posted speed limit.

Show the installation of a 4 6-foot fence along the property line. Submit detail of fence.

Submit a photometric lighting plan showing location and height of poles and/or wall packs. Lighting plan shall include a grid of proposed foot-candles. Show detail of the light pole and fixtures. Fixtures shall provide fully recessed lighting with 90-degree angle. All lighting is to illuminate only the subject property.

Show location and enclosure detail for refuse. Refuse enclosure to be constructed of similar material to match building with 6-foot opaque gates. Show installation of bollards with latch for gates. Recommend use of trash compactor.

Show location of proposed utilities. RPZ valve (75 ft from building to property line) and electric transformers on site shall be suitable screened with landscaping. . All utilities are to be installed/relocated underground

Show location of proposed fire hydrants

All paved areas to be bordered by continuous concrete curb.

Show detail of curb, walk, and pavement, Concrete to be 4,000 psi.

Pavement specification is 1 ½" NYS 6F top, 3 ½"dense binder course or 2" NYS 6F top, 4" compacted stone blend with a 6" stabilized base.

Show existing edges of the pavement to be saw cut prior to paving.

Show location and type of facilities to handle solid waste.

Submit permit and approved plans with seals from SCDHS Wastewater Mgmt, Drinking Water, SCDPW, NYSDOT, NYSDEC Wetlands Pollution Control, and Town Wetlands & Waterways

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OFF-SITE IMPROVEMENTS

Show installation of curb, sidewalk, pavement tie-in and drainage along entire frontage.

Show calculations for a storage of 2" rainfall for street frontages.

Show 8-foot dimension of curb from property line, 5-foot sidewalk width, and 3-foot grass area between the walk and curb.

foot dedication and/or foot radius required along

Note dedication to be filed prior to issuance of Certificate of Occupancy.

Show cross section detail of on site and street improvements.

Submit copy of NYSDOT SCDPW permit for work within right of way.

Show location of required and/or warranted traffic signs, traffic signal, pavement markings and all traffic control devise to be in conformance with New York State Manual of Uniform Traffic Control Devices.

20 SEP 2004
Updated

International Dark-Sky Association

IDA's Lighting Code Handbook V1.14 Sep 2002

Please review the following information before downloading (link below).

IDA Outdoor Lighting Code Handbook and USA Pattern Lighting Code A Summary

Contents:

Introduction

Outdoor lighting is used for a variety of purposes in our modern society. For work or recreation, it enables people to see essential detail so they can be active at night. Good lighting can enhance the safety and security of persons or property, emphasize features of architectural or historical significance, or call attention to commercial premises by means of area lighting or signs.

Unfortunately, poor lighting practice is rampant. Much bad lighting can be blamed on the fact that the user is unaware of the issues of visibility and utility. Careless and excessive use of artificial light in our outdoor environments causes extensive damage to the aesthetics of the nighttime environment, while at the same time it often compromises safety and utility, the very reason for its installation. Bad lighting hurts everyone. The loss of the dark star-filled sky is of tragic consequence for the environment and for the human soul, akin to the loss of our forested landscapes and other natural treasures.

On the other hand, quality lighting brings substantial benefits. Lack of glare and excessive contrast brings improved visibility, especially for the aging eye; elimination of wasted light saves money, energy and resources, which in turn reduces air pollution and carbon dioxide emissions caused by energy production and resource extraction; quality lighting improves the appearance of our communities, returning a sense of balance to the night and giving a more attractive appearance to our towns and cities.

Though outdoor lighting codes originated with the pioneering efforts of western American communities with significant astronomical research facilities, the issues are much broader than the darkness of the night sky and the effectiveness of astronomical research. Lighting codes are relevant for all communities. IDA gets many requests for information on ordinances and for copies of existing lighting ordinances.

The IDA Outdoor Lighting Code Handbook and USA. Pattern Lighting Code are a response to these requests and should be of assistance to anyone in composing lighting codes in the increasing numbers of communities that want to address the issues. It is intended as an aid to communities that are seeking to take control of their outdoor lighting, to "take back the night" that is being lost to careless and excessive use of night lighting.

Why Must Outdoor Lighting Be Regulated?

Though there are many needs for lighting in our built-up environment, obtrusive affects of lighting often extend well beyond the boundaries of the area in which the lighting is installed. These obtrusive aspects, such as glare, trespass, energy waste, and sky glow, can have serious consequences for the public health, safety, and welfare, but they can also be effectively controlled or eliminated with carefully considered attention to design, installation, and use.

Further, some perfectly legitimate purposes for lighting may have potential incompatibilities. As an example, the competition among businesses for visibility and advertising may conflict with the needs of the community to see well on roadways, and its desire for an uncluttered nighttime environment and for dark skies. Balancing of these competing interests requires a carefully considered lighting code.

What is an Outdoor Lighting Code?

An outdoor lighting code is a legal document that establishes and defines permitted and prohibited lighting practices, with an emphasis on limiting the obtrusive aspects of lighting more than an emphasis on good lighting per se. Lighting codes are often included as a chapter of the zoning or land-use code for a locality.

A lighting code is the vehicle for a community to express its expectations about quality lighting. If it is well written, implemented, and enforced, the amount of improvement that can be achieved is nothing short of phenomenal. Effective shielding standards, as recommended in this Handbook, will virtually eliminate glare and will reduce the amount of light escaping into the sky by fifty percent or more compared to typical unregulated lighting practices.

Lighting codes may be enacted at different governmental levels, from state to counties or townships, to cities, and even to development projects or neighborhoods. State-level codes usually address only very general issues, such as lighting built with state funding. State laws also enable the adoption of more comprehensive codes at local levels.

What Makes a Lighting Code Effective?

The goal of a Code is the elimination of glare and of unnecessary uplight as well as the minimization of the other adverse effects of poor quality lighting. Actually achieving the goals requires not only a good lighting code but effective implementation and then enforcement of the code on an ongoing basis.

The adoption of a good lighting code involves several steps. First, an awareness of the issues and of the characteristics of quality lighting must be built. This process usually starts with an individual or group that is especially motivated or sensitive to the issues of the aesthetic character of dark skies and of the many values of quality lighting. Only then can one begin to draft a code appropriate for the community and to bring this code through to community review, enactment, and implementation.

Practicality of application and enforcement is emphasized again and again in the Handbook and USA Pattern Code. Definitions must be understandable; rules must not only be technically correct and effective, they must also be understandable and enforceable; forms must be clear and understandable to lighting users, lighting designers, and planning staff. Achieving these complex and interrelated goals is challenging, but they must be successfully meshed if the community is to see real improvements.

Different Standards for Different Areas

Different areas, with different developed and natural conditions, have differing levels of appropriate light usage, and different sensitivities to the various obtrusive aspects of outdoor lighting. Because of this, five lighting zones are defined in the USA Pattern Lighting Code, and lighting standards appropriate to those zones are established. The zones are based on the CIE Environmental Zones, and range from areas with intrinsically dark landscapes such as national parks, and other areas set aside as dark-sky preserves, though rural and urban residential areas to areas of relatively high ambient brightness in the most highly developed urban areas.

Why Doesn't the USA Pattern Lighting Code Specify Lighting Levels?

Nighttime overlighting is increasingly becoming a serious issue. An egregious example in recent years is service station canopy lighting, but other applications are also appearing in many communities. This overlighting is a serious problem, leading to compromised visibility and safety particularly for the aging eye.

A natural inclination is to turn to the lighting profession itself and use recommended lighting levels as defined by the Illuminating Engineering Society of North America (IESNA). For several practical reasons, however, the USA Pattern Lighting Code has emphasized a different approach, taking a direction that avoids wherever possible technical lighting specifications. The control of the majority of overlighting problems can be addressed effectively by an overall cap on the amount of light permitted, scaled to the area to be developed - lumens per acre caps.

The amount of light included in a design, measured in lumens, is practical and simple to verify from a simple list of lamps, and requires no special lighting expertise. It leaves the maximum flexibility for the lighting designer, while at the same time keeping a cap on the total amount of light used. As long as the lumen amounts permitted provide reasonable amounts of light for the designer to work with, professional quality designs can solve the problems of each lighting situation by trading off the amounts of decorative and general illumination and the areas to be illuminated. IDA believes that creativity in lighting design is enhanced rather than suppressed by this approach.

Practical Impacts of the USA Pattern Outdoor Lighting Code

Implementation and enforcement of a lighting code affects planning and code enforcement staff. In addition to the time required to review additional materials related to lighting, and possible follow-up on-site to verify compliance, the staff will need to develop some familiarity with lighting terms such as lumens, and the shielding characteristic of luminaires. Enforcement includes not only the assurance that plans and constructions conforms to the standards of the code when the building or lighting permit is issued and when the project is completed, but also monitoring of continuing compliance after the project is completed.

Some areas of lighting codes suffer from difficulty or impracticality of enforcement. A few of those areas are discussed in the Handbook. Much can be accomplished through a process of general education in a community; many difficult enforcement problems cannot be effectively addressed in any other way. After the code is in place, its continued success depends on maintaining the involvement and support of the community.

Handbook Contents

It is not the intent of the IDA Outdoor Lighting Code Handbook to offer a single solution appropriate for all communities or situations. It does offer a comprehensive guide describing issues relevant to the control of the obtrusive aspects of outdoor lighting, and the effective regulatory approaches to mitigate these aspects. It is intended for use by any community of any size or locale in the USA.

The first section, How to Use the Handbook and USA Pattern Lighting Code, is a general overview of

how the Handbook can be used as an aid in the process of drafting an outdoor lighting code. Following this is a section with discussions of several general issues related to lighting and lighting codes, and the approaches that are most effective. Several lighting design issues are discussed, as well as the suitability of various lamp types. Several topics are discussed in a section on Enforcement Issues and Problem Areas. After adoption of a lighting code, the issues of ongoing enforcement must be addressed, and the section on Outdoor Lighting Committees describes an effective way to keep the community involved.

Next is the USA Pattern Lighting Code itself. All section titles within the USA Pattern Lighting Code are linked to Section Overviews, where general issues related to the section are described. Within each section are links to Notes that follow the USA Pattern Lighting Code, each addressing specific issues related to the code text. Following the notes are short sections covering a few technical definitions used in the Handbook but not included in the Pattern Code Definitions Finally, there is an Administrative Appendix. Here are found a discussion of the implications of a lighting code for the local planning or building department, and forms that can be used in the process of administering the lighting code.

About the International Dark-Sky Association (IDA)

The International Dark-Sky Association (IDA) is behind much of the light pollution control and education effort in the past ten years. IDA is a non-profit, membership-based organization whose goal is to stop the adverse environmental impact of light pollution through education about the value and effectiveness of quality nighttime lighting and about the solutions to the problems. The efforts of this organization and its members have had a tremendous effect, among citizens a lighting professionals alike, on the aesthetics of the night and the awareness of how good lighting practices can enhance our nighttime environment and activities.

Information about IDA and the issues of dark skies and of quality outdoor lighting is contained on the IDA web site at www.darksky.org. The site contains IDA newsletters and information sheets, many images, and many links to other web sites.

How to Obtain a Copy of the Handbook?

The full text of the Handbook is available on the IDA web site (www.darksky.org). Note that it is a long document (about 60 printed pages) and it will take a long time to download for most users.

IDA Lighting Code Handbook V1.14 Sep 2002

Those wishing a hard copy of the Handbook are welcome to print the text from the web site (it is about 60 printed pages) or to write IDA at

IDA, Inc.

3225 N First Avenue, Tucson AZ 85719

A bound copy of the text (about 80 pages) will be available soon, see the Resources Page of the IDA Web Site.

Note that the Handbook will be going through active revision and new editions will appear regularly on the web site. These revisions will be made as we receive input and questions concerning the Handbook and as we are able to add additional useful information to the text. Our goal will be to make the Handbook as useful as possible to a wide variety of users. Clarity and usefulness to the user are the main goals as well as technical and administrative completeness and validity.

We thank all of those who have helped in the preparation of this Handbook and for the many discussions we have had with individuals, citizens, governmental officials, and lighting engineers and designers.

Dr. Chris Luginbuhl has been the Editor of the Handbook throughout all its many drafts.

Local and Web Links -

IDA Lighting Code Handbook V1.14 Sep 2002

Outdoor Lighting Regulations

IDA's Position on Lighting Ordinances

Proposal for "Model Lighting Ordinance"

Lighting Regulations World Wide

U.S.A. State Laws Adopted and Proposed

U.S.A. Municipality Outdoor Lighting Regulations Listed by State

Beginner's Guide to Lighting Regulation

Good Lighting Fixtures and Where to Get Them

Basic Information on the Light Pollution problem and solutions LiteLynx State & Local Laws [External Link]

Notice Regarding
Town of Branford, Connecticut

Planning & Zoning Commission Outdoor Lighting Regulations

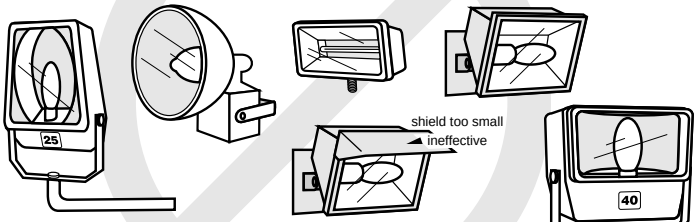
The Branford Planning & Zoning Commission enacted specific outdoor lighting amendments as part of the town's zoning regulations on June 1, 1997. These regulations are designed to benefit residents and businesses in Branford by constituting better nighttime visibility, public safety, energy efficiency, and preservation of the natural night environment. Please refer to Section 31 of the town's zoning regulations for the complete Outdoor Lighting Regulations.

*Note: Recommended illumination levels established by Illuminating Engineering Society of North America shall be observed. When taking out an electrical permit, provide an iso-footcandle plot and fixture 'cut sheet' for proposed lighting along with permit application.

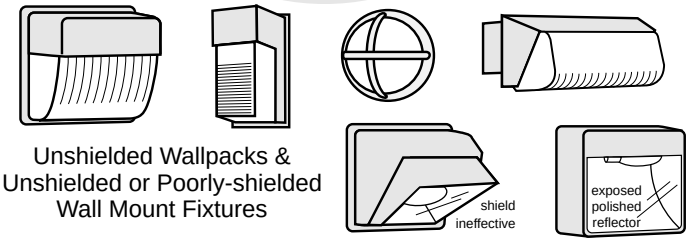
Examples of Acceptable / Unacceptable Lighting Fixtures

Unacceptable / Discouraged

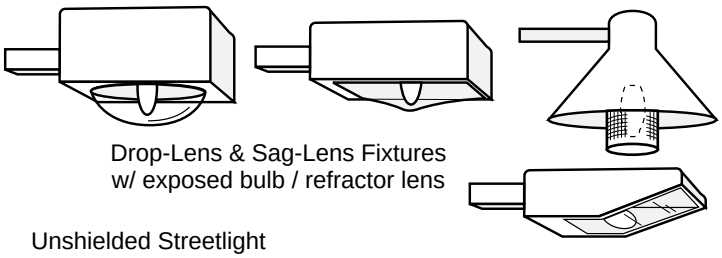
Fixtures that produce glare and light trespass



Unshielded Floodlights
or Poorly-shielded Floodlights

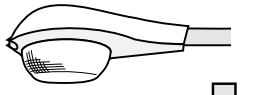


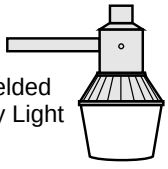
Unshielded Wallpacks &
Unshielded or Poorly-shielded
Wall Mount Fixtures



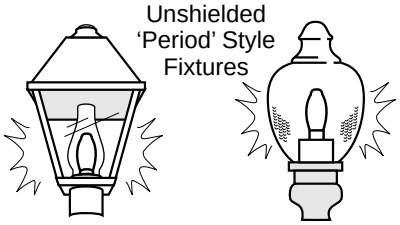
Drop-Lens & Sag-Lens Fixtures
w/ exposed bulb / refractor lens

Unshielded Streetlight

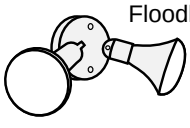




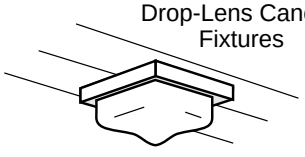
Unshielded
Security Light



Unshielded
'Period' Style
Fixtures



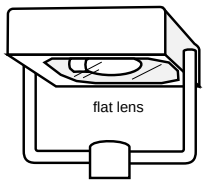
Unshielded PAR
Floodlights

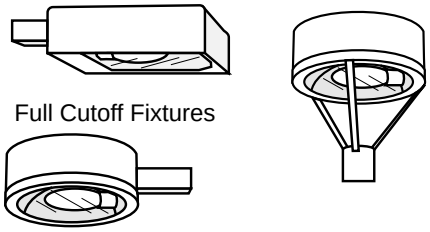


Drop-Lens Canopy
Fixtures

Acceptable

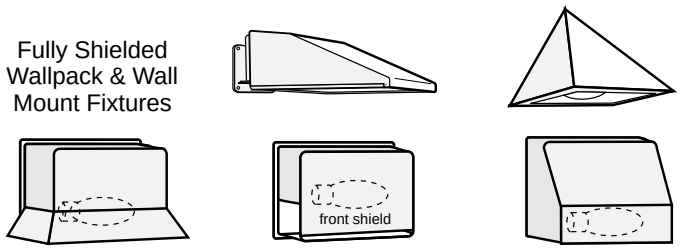
Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night

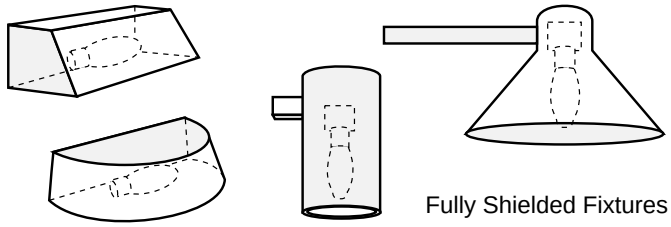




Full Cutoff Fixtures

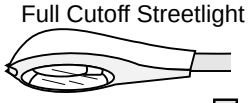
Fully Shielded
Wallpack & Wall
Mount Fixtures

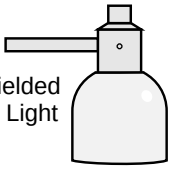




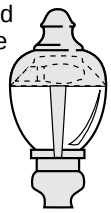
Fully Shielded Fixtures

Full Cutoff Streetlight



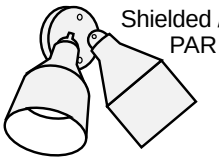


Fully Shielded
Security Light

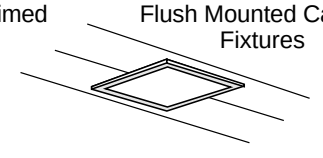


Fully Shielded
'Period' Style
Fixtures

bulb shielded
in opaque top



Shielded / Properly-aimed
PAR Floodlights



Flush Mounted Canopy
Fixtures

BC 10/02